EAST AFRICAN COMMUNITY

EDICT OF GOVERNMENT

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EAS 738 (2010) (English): Fresh sweet cassava – Specification



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EAS 738:2010
ICS 67.080.20

EAST AFRICAN STANDARD

Fresh sweet cassava — Specification

EAST AFRICAN COMMUNITY

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First Edition 2010

Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to meet the above objectives, the EAC Partner States have enacted an East African Standardization, Quality Assurance, Metrology and Test Act, 2006 (EAC SQMT Act, 2006) to make provisions for ensuring standardization, quality assurance, metrology and testing of products produced or originating in a third country and traded in the Community in order to facilitate industrial development and trade as well as helping to protect the health and safety of society and the environment in the Community.

East African Standards are formulated in accordance with the procedures established by the East African Standards Committee. The East African Standards Committee is established under the provisions of Article 4 of the EAC SQMT Act, 2006. The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

Article 15(1) of the EAC SQMT Act, 2006 provides that “Within six months of the declaration of an East African Standard, the Partner States shall adopt, without deviation from the approved text of the standard, the East African Standard as a national standard and withdraw any existing national standard with similar scope and purpose”.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

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Acknowledgement

This standard was developed with support from the Policy Analysis and Advocacy Programme (PAAP) of the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA). This was possible though a grant by the United States Agency for International Development (USAID). This support was used in the process of formulation and mobilization of stakeholders to review the standard in national and regional fora.

ASARECA is a non-political association of agricultural research institutes in: Burundi, DR Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania and Uganda. ASARECA serves as a platform for promoting regional research and in the sharing of benefits and spillovers that derive from such research. The mission of ASARECA is to "*Enhance regional collective action in agricultural research for development, extension and agricultural training and education, to promote economic growth, fight poverty, eradicate hunger and enhance sustainable use of resources in Eastern and Central Africa*".

Development of standards has been part of PAAP's contribution to changing the way business is done in crucial agricultural sectors to increase efficiency and/or reduce waste through rationalization and harmonization of policies, laws, regulations and procedures. Rationalization focuses on how countries conduct business in a given subsector, and determines what should be done to make the procedures and processes more efficient. Harmonization brings together regionally different approaches (policies, laws, regulations and procedures) into unified approaches that are applied across the countries. This harmonization process allows commodities and factors to move freely across national boundaries, thereby improving domestic and foreign investment by expanding markets beyond national borders. Over time this will lead to gradual attainment of seamless borders for trade in cassava and cassava products across the region.

Removal of regulatory bottlenecks to transboundary movement of cassava products in the region will enhance competitiveness of trade and value addition in the sub-sector. It will improve the value chains by supporting product differentiation and hence increased trade in cassava products in the region. This will ultimately contribute to incomes, employment generation and improved welfare in the region. This fits snugly with the aspirations of ASARECA as a key player contributing to economic development of the region.

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Fresh sweet cassava — Specification

1 Scope

This East African Standard specifies requirements and methods of sampling and test for varieties of fresh sweet cassava roots of *Manihot esculenta* Crantz, of the *Euphorbiaceae* family, to be supplied to the consumer, intended for direct human consumption. Cassava roots intended for industrial processing is excluded.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EAS 38, *General standard for the labelling of pre-packaged foods*

EAS 39, *Code of practice for hygiene in the food and drink manufacturing industry*

ISO 874, *Fresh fruits and vegetables — Sampling*

EAS 103, *General Standard for Food additives*

CODEX STAN 193, *Codex General Standard for contaminants and toxins in food*

ISO 7563, *Fresh fruits and vegetable — Vocabulary*

CAC/RCP 44, *Recommended International Code of Practice for Packaging and Transport of Fresh Fruit and Vegetables*

CAC/RCP 53, *Code of Hygienic Practice for Fresh Fruits and Vegetables*

EAS 744:2010, *Cassava and cassava products — Determination of total cyanogens — Enzymatic assay method*

3 Terms and definitions

For the purposes of this standard, the terms and definitions in ISO 7563, and the following terms and definitions shall apply.

3.1
fresh cassava
unpeeled roots from varieties of cassava [*Manihot esculenta* (Crantz)] of the *Euphorbiace* family which contain stored carbohydrates mainly as starch

3.2
clean
practically free of visible soil, dust, or other visible foreign matter , except substances used to prolong its shelf life;

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3.3
firm
resistant to externally applied pressure

3.4
practically free
product without defects in excess of those that can be expected to result from, and be consistent with good cultural and handling practices employed in the production and marketing of the fresh cassava

3.5
sound
wholesome
free from disease, serious deterioration (such as but not limited to decay, breakdown, freezing damage, or soft or shrivelled specimens) or adulteration/contamination, that appreciably affects their appearance, edibility, the keeping quality of the produce or market value.

3.6
sweet cassava
cassava roots that contain less than 50 mg/kg hydrogen cyanide (fresh weight basis).

3.7
whole
fresh sweet cassava which has not been subjected to any cutting or peeling of its initial harvested mass, “trimming” exempted

3.8
fresh
appearance at the time of sale, similar visual characteristics to the fresh sweet cassava recently harvested (i.e., color, texture, firmness or shrivelled)

3.9
industrial processing
production of potato products such as starch, flour, livestock feeds, paste, granules and syrups

3.10
food grade material
one that will not transfer non-food chemicals into the food and contains no chemicals which would be hazardous to human health

4 Quality requirements

4.1 General requirements

The fresh sweet cassava roots should be carefully harvested after reaching an appropriate degree of physiological development account being taken of the characteristics of the variety and the area in which they are grown.

The development and condition of the fresh sweet cassava shall be such as to enable it to;

a) withstand normal transport and handling conditions, and

b) arrive in a satisfactory condition at the place of destination.

4.2 Minimum requirements

All fresh sweet cassava supplied to the market shall be:

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a) firm;

b) wholesome/sound

c) whole

d) fresh,

e) of colour, taste and texture characteristic of the variety

f) clean,

g) of a characteristic skin colour and free from flesh discolouration(vascular streaking)

h) practically free of pests affecting the general appearance of the produce;

i) practically free of damage caused by pests and diseases;

j) free of abnormal external moisture, excluding condensation following removal from cold storage;

k) free of any foreign smell and/or taste with exception of preservation agents allowed; and

l) practically free of mechanical damage and bruising.

The cut at the distal (narrow) end of the cassava shall not exceed 2 cm in diameter.

The stalk end of the root shall have a clean cut between 1 cm and 2.5 cm in length.

Defects in the minimum requirements affecting no more than 10 % of the roots may be allowed, provided the cassava retains its essential characteristics as regards the quality, the keeping quality and presentation. The defects shall not, in any case, affect the quality of the pulp of the cassava roots.

4.3 Total cyanogen content

When tested in accordance to EAS 744, sweet cassava roots shall have no more than 50 mg/kg of hydrogen cyanide (fresh weight basis)

5 Food additives

Fresh cassava roots may be preserved by use of food additives such as wax, in accordance with EAS 103.

6 Classification of cassava roots

6.1 Types of classes

Fresh sweet cassava may be classified before marketing.

Where classification is done the following grades shall be used in accordance with the requirements of each class and the quality tolerances in Clause 7.

- extra class;

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- class I; and
- class II.

6.2 Class requirements

6.2.1 Extra class

Extra class sweet cassava shall be cassava roots that meet the minimum requirement in Clause 4 and are

a) of superior quality in terms of taste, texture, skin and flesh colour.

b) characteristic of the variety and uniform in shape, quality and size.

Extra class cassava roots shall be free from defects, with the exception of superficial defects affecting not more than 2 % of the cassava roots.

6.2.2 Class I

Class I cassava storage roots shall be cassava roots that meet the minimum requirement in Clause 4 and are :

a) of good quality; and

b) characteristic of the variety.

The following slight defects may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation of cassava roots:

a) defects in shape not exceeding 5% of the roots;

b) bruising, not exceeding 10 % of the surface area of the roots and

c) scraped areas, not exceeding 20 % of the surface area of the roots

d) scarred and healed damage, not exceeding 5% of the surface area of the roots.

6.2.3 Class II

Class II cassava storage roots shall be cassava, which does not qualify for inclusion in the higher classes, but satisfies the minimum requirements specified in Clause 4.

The following defects may be allowed:

a) defects in shape not exceeding 10 % of the roots;

b) bruising, not exceeding 20 % of the surface area of roots and

c) scraped areas, not exceeding 30 % of the surface area of roots.

d) scarred and healed damage, not exceeding 10% of the surface area of the roots.

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7 Provisions concerning tolerances

Tolerances in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

7.1 Quality tolerances

7.1.1 "Extra" Class

Five percent by number or weight of cassava not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

7.1.2 Class I

Ten percent by number or weight of cassava not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

7.1.3 Class II

20 % by number or weight of cassava satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.[1]

7.2 Size tolerances

For all classes, 10% by number or weight of cassava corresponding to the size immediately above and/or below that indicated on the package.

8 Sizing and coding

Fresh cassava storage roots shall not be less than

- 300 g in weight; and
- 20 cm in length.

Sweet cassava shall be coded in sizes in accordance with Table 1. Size shall be determined by measuring the diameter at the thickest cross-section of the root.

Size tolerances for all classes shall be a maximum of 10 % by number of the weight of cassava corresponding to the size immediately above or below the size declared or indicated on the package.

Table 1 — Size code requirements of the cassava roots

Size code	Diameter, cm
A	4.0 - 6.0
B	6.1 - 8.0
C	>8.0

[1] "Partners States are required to note that the tolerance level applicable in Rwanda for Class 11 shall be 10 % in the place 20%".

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9 Contaminants

9.1 Pesticide residues

Sweet Cassava roots shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission for this commodity.

9.2 Other contaminants

Sweet cassava roots shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193).

10 Hygiene

Sweet cassava roots shall be handled in a hygienic manner in accordance with Codex Stan CAC/RCP 53.

11 Presentation

11.1 General

Fresh sweet cassava shall be supplied loose or packaged after cleaning and any other preparation necessary for marketing.

11.2 Uniformity

The contents of each package must be uniform in shape and contain only cassava of the same origin, variety and/or commercial type, quality and size. The visible part of the contents of the package must be representative of the entire contents.

11.3 Packaging

Fresh Cassava may be packaged to protect the produce from mechanical heat and frost damage. In addition to requirements specified in CAC/RCP 44, sweet cassava shall be packaged in food grade materials, which will safeguard the hygienic, nutritional, and organoleptic qualities of the product. The packaging materials shall comply with the environmental legislation of the destination country,

12 Weights and Measures

Fresh sweet cassava shall be packaged in accordance with the legal metrology requirements of the destination country.

13 Labelling

13.1 In addition to the requirements of EAS 38, the following labeling requirements shall apply and shall be legibly and indelibly marked;

a) name of the product shall be “Fresh Sweet Cassava roots”;

b) name and physical address of the producer, packer or distributor shall be declared;

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c) country of origin of the produce and optionally, the name of town;

d) commercial identification shall be declared that is,

- class, if applicable
- size (size code),
- net weight (in metric system);

e) lot identification;

f) declaration of preservatives, if used;

g) preparation instructions ,statement indicating that cassava should be peeled and fully cooked before being consumed; and

h) best before date.

i) date of harvest

j) packing date

k) storage conditions

13.2 When labelling non-retail packages, information for non-retail packages shall either be given on the packages or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer or packer shall appear on the package.

14 Sampling

Sampling shall be done in accordance to ISO 874

15 Criteria for conformity

A lot shall be declared as conforming to this standard if each sample inspected or analysed for quality requirement conforms to the provision of this standard.

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